

**NEVADA DIVISION OF ENVIRONMENTAL PROTECTION**

**AUTHORIZATION TO DISCHARGE**

In compliance with the provisions of the Clean Water Act as amended, (33 U.S.C. 1251 et. seq; the "Act"), and Chapter 445A of the Nevada Revised Statutes (NRS), the Permittee,

**Truckee Meadows Water Reclamation Facility (TMWRF)  
Cities of Reno and Sparks  
P.O. Box 857  
Sparks, Nevada 89432**

**Contact Entity: City of Sparks**

is authorized to discharge from a facility located at:

**8500 Clean Water Way  
Reno, Washoe County, Nevada 89502  
Township 19 N, Range 20 E, Section 11 MDB&M  
Latitude: 39° 31' 8.7" N.  
Longitude: 119° 42' 10" W.**

to receiving waters named:


**the Truckee River via Steamboat Creek  
Outfall 001:**

in accordance with the effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II, and III hereof.

This permit shall become effective on **May 8, 2012.**

This permit and the authorization to discharge shall expire at 12:01 am on **May 8, 2017.**

Signed 7<sup>th</sup> day of May, 2012.

  
Jeryl R. Gardner, P.E.  
Bureau of Water Pollution Control



**PART I****I.A. EFFLUENT LIMITATIONS, MONITORING, AND CONDITIONS**

There shall be no discharge from the facility property except as authorized by this permit; there shall be no discharge or release of pollutants or toxic contaminants from the facility to the ground surface or waters of the State except as authorized by this permit; and there shall be no discharge of substances that would cause a violation of water quality standards of the State of Nevada (State) except as authorized by this permit.

**I.A.1 Effluent Limitations:** During the period beginning on the effective date of this permit and lasting until the permit expires, the Permittee is authorized to discharge from a single pipe located on the northwest side of the discharge structure, Outfall 001, into Steamboat Creek, tributary to the Truckee River. Use of reclaimed water/treated effluent and biosolids from the facility may be authorized by other permits.

- a. Samples taken in compliance with the monitoring requirements specified below shall be taken at:
  - i. The influent headworks weirs;
  - ii. The end of the discharge pipe into Steamboat Creek (Outfall 001);
  - iii. The downstream boundary of the zone of mixing, approximately 3,800 feet downstream of the confluence of Steamboat Creek and the Truckee River;
  - iv. The East McCarran Bridge; and
  - v. The Truckee River, approximately 300 feet east of the confluence with the North Truckee Drain.
- b. The effluent discharge shall be limited and monitored by the Permittee as specified in Table I.A.1.



**Table I.A.1. Discharge Limitations, Monitoring and Reporting Requirements**

Parameters	Units	Discharge Limitations			Monitoring Requirements		
		30-Day Average	Daily Max	30-Day Avg Load (ppd)	Sampling Locations	Monitoring Frequency	Monitoring Type
Influent Flow Rate	MGD	44.0	M&R	---	INF (i)	Continuous	Flow meter
Effluent Flow Rate	MGD	M&R	M&R	---	EFF (ii)	Continuous	Flow meter
BOD <sub>5</sub> (uninhibited)	mg/l	M&R	M&R	M&R	INF (i)	3 Times/ Week	Composite
		20	30	7,339 –avg 11,009 -max	EFF (ii)		
TSS	mg/l	M&R	M&R	M&R	INF (i)	3 Times/ Week	Composite
		20	30	7,339 –avg 11,009 –max	EFF (ii)		
TDS	mg/l	---	500	120,168 <sup>1</sup>	EFF (ii)	Weekly	Composite
TN as N	mg/l	---	---	500 <sup>1</sup>	EFF (ii)	Weekly	Composite
TKN as N	mg/l	M&R	M&R	---	EFF (ii)	Weekly	Composite <sup>9</sup>
Nitrate as N	mg/l	---	2.0	---	EFF (ii)	Daily	Composite
DON as N	mg/l	M&R	M&R	---	EFF (ii)	Weekly	Composite <sup>9</sup>
Total Ammonia as N	mg/l	---	I.A.1.c.2	---	EFF (ii)	Daily	Composite
		---	I.A.1.c.1	---	iii	Weekly <sup>11</sup>	Discrete
TP as P	mg/l	0.40	---	134 <sup>1</sup>	EFF (ii)	Daily	Composite
Alkalinity as CaCO <sub>3</sub> <sup>3</sup>	mg/l	M&R	M&R	---	EFF (ii), iv	Weekly	Composite <sup>9</sup>
Hardness as CaCO <sub>3</sub> <sup>3</sup>	mg/l	M&R	M&R	---	iv	Quarterly	Discrete
TRC	mg/l	---	0.10 <sup>2</sup>	---	EFF (ii)	Daily	Discrete
Temperature <sup>4</sup>	°C	---	M&R	---	iii, v	Weekly	Discrete
ΔT <sup>4</sup>		< 2.0 <sup>10</sup>					
Fecal Coliform	MPN/ 100ml	200 <sup>5</sup>	400 <sup>6</sup>	---	EFF (ii)	Daily	Discrete
Escherichia Coli	MPN/ 100ml	126 <sup>8</sup>	410	---	EFF (ii)	Daily	Discrete
DO	mg/l	---	≥ 5.0	---	EFF (ii)	Daily	Discrete
pH -SV	S.U.	---	6.5-9.0 <sup>2</sup>	---	EFF (ii)	Daily	Discrete
		M&R			iii	Weekly	
Priority Pollutants – Full Scan	μg/l	---	---	---	INF (i)	Annually (in 4 <sup>th</sup> quarter)	Composite
Priority Pollutants – Present Pollutants	μg/l	---	<sup>7</sup>	---	EFF (ii)	Quarterly	Composite

**Table I.A.2. Table Definitions and Footnote Explanations**

Term/ Footnote	Definitions and Footnote Explanations
ppd	Pounds per day
MGD	Million gallons per day
M&R	Monitor and report
INF	Influent to treatment facility
EFF	Effluent; discharge from treatment facility at Outfall 001
BOD <sub>5</sub>	5-day biological oxygen demand, uninhibited
mg/l	Milligrams per liter
TSS	Total suspended solids
TDS	Total dissolved solids
TN	Total nitrogen species

as N	As nitrogen
TKN	Total Kjeldahl nitrogen, filtered sample
DON	Dissolved organic nitrogen. If the Permittee does not request removal of DON from the WLA, the Permittee may request a minor modification to the permit to remove monitoring.
TP	Total phosphorus species
as P	As phosphorus
as CaCO <sub>3</sub>	As calcium carbonate
TRC	Total residual chlorine
°C	Degrees Celsius
ΔT	Delta T (change in temperature)
MPN	Most probable number
DO	Dissolved oxygen
SV	Single value
S.U.	Standard pH units
Priority Pollutants (Attachment A)	Full scan for pollutants listed in Attachment A. Metals shall be total recoverable. Attachment A may be modified by the Division as a minor modification to this permit.
Present Priority Pollutants	Monitor effluent quarterly for priority pollutants that exhibited detectable concentrations in the annual influent full scan.
IWLA	Individual Waste Load Allocations
μg/l	Micrograms per liter
Footnote 1	The limits for TN, TP, and TDS are based on IWLA (see Part I.A.4).
Footnote 2	Except as allowed in Part I.A.7.
Footnote 3	Background River water alkalinity, and hardness, shall be monitored at the East McCarran Bridge.
Footnote 4	River water temperature shall be monitored at iii and v. ΔT shall be calculated as the difference between the temperature readings at sampling locations iii and v.
Footnote 5	The fecal coliform level <b>may not</b> exceed a geometric mean of 200 MPN per 100 ml.
Footnote 6	A maximum of 10% of the total fecal coliform samples <b>may</b> exceed 400 MPN per 100 ml during any 30-day period, <b>without permit violation</b> .
Footnote 7	Exceedance of any of the NAC 445A.144 standards for toxic materials applicable to designated waters.
Footnote 8	Annual geometric mean.
Footnote 9	Seven-day, 24-hour flow weighted composite.
Footnote 10	Not considered an exceedance if the downstream water temperature does not exceed the water quality standards for beneficial uses set forth in NAC 445A.187.
Footnote 11	Comply with Ammonia calculations and reporting requirements outlined below in I.A.1.c.

**I.A.1.c. Ammonia Calculations and Reporting Requirements (Footnote 11):**

Report the calculated limit and the analytical result. For each sample event, formula terms contained in 1 and 2 below shall have the following meaning:  
***pH and temperature are field measurements that must be taken at the same time and location as the water sample destined for the laboratory analysis of ammonia.***

1. The chronic criteria of water quality with regard to the concentration of total ammonia are subject to the following:

- (a) The facility discharge Monthly chronic concentration of total ammonia, in milligrams of nitrogen per liter, shall be calculated by the NAC 445A.118 Table 2 chronic concentration **by value from table matrix of temperature and pH or by formula for the 30-Day average** for each discharge sample event as follows:

$$\left[ \frac{0.0577}{1+10^{7.688-pH}} \right] + \left[ \frac{2.487}{1+10^{pH-7.688}} \right] \times \text{MIN} [2.85, 1.45 \times 10^{0.028 \times (25-T)}]$$

where: MIN=lesserof commaseparatedvalues; T = temp. °C; x = multiply



- (b) The concentration of total ammonia, in milligrams of nitrogen per liter, expressed as a 30-day average must not exceed the applicable chronic criterion as calculated more than once every 3 years on average and the highest 4-day average within the 30-day period must not exceed 2.5 times the applicable chronic criterion.

**Measurement frequency** of once per 30-day (Monthly) is an acceptable indicator for evaluating total ammonia chronic criterion and may be used in reporting to demonstrate compliance of discharge event calculated limit. However, if a sample analysis exceeds the allowed calculated chronic limit in part (a), the **measurement frequency** must be increased to a minimum of 4 consecutive days within the 30-day period so that chronic criterion part (b) can be applied for determining permit compliance.

2. The acute criteria for water quality with regard to the concentration of total ammonia are subject to the following:

- (a) The facility discharge Daily Maximum acute concentration of total ammonia, in milligrams of nitrogen per liter, for **cold water fisheries** shall be calculated by the NAC 445A.118 Table 1 acute concentration by **value from table matrix of pH and fishery water type or by formula for the 1-hour average** for each sample event as follows:

$$\text{follows: } \left[ \frac{0.275}{1 + 10^{7.204 - \text{pH}}} \right] + \left[ \frac{39.0}{1 + 10^{\text{pH} - 7.204}} \right]$$

- (b) The concentration of total ammonia, in milligrams of nitrogen per liter, must not exceed the applicable acute criterion as calculated more than once every 3 years on average.

**Measurement frequency** for evaluating total ammonia acute criterion as daily maximum shall utilize the same **measurement frequency** required for that of evaluating the chronic criteria of water quality defined in Part 1 above. The total ammonia concentration determined by laboratory analysis for each sample event shall be compared to the same event's calculated acute criterion limit.

## I.A.2 **Biosolids:**

- a. If Biosolids are land applied for beneficial reuse, the Permittee shall comply with the following:

Biosolids shall be sampled at the discharge of the cake pumps. The biosolids shall be limited and monitored by the Permittee as specified in Table I.A.3.

**Table I.A.3. Biosolids Limitations and Monitoring Requirements**

Parameters and Units	Limitations		Monitoring Requirements	
	Pollutant Concentrations	Ceiling Concentrations	Frequency	Sample Type
Arsenic (mg/kg)	41	75	1/60 days	Representative <sup>1</sup>
Cadmium (mg/kg)	39	85	1/60 days	Representative <sup>1</sup>
Chromium (mg/kg)	1200	3000	1/60 days	Representative <sup>1</sup>
Copper (mg/kg)	1500	4300	1/60 days	Representative <sup>1</sup>
Lead (mg/kg)	300	840	1/60 days	Representative <sup>1</sup>
Mercury (mg/kg)	17	57	1/60 days	Representative <sup>1</sup>
Molybdenum (mg/kg)	---	75	1/60 days	Representative <sup>1</sup>
Nickel (mg/kg)	420	420	1/60 days	Representative <sup>1</sup>
Selenium (mg/kg)	36	100	1/60 days	Representative <sup>1</sup>
Zinc (mg/kg)	2800	7500	1/60 days	Representative <sup>1</sup>
Organic Nitrogen as N (mg/kg)	Monitor and Report		1/60 days	Representative <sup>1</sup>
Ammonia as N (mg/kg)	Monitor and Report		1/60 days	Representative <sup>1</sup>
Nitrate as N (mg/kg)	Monitor and Report		1/60 days	Representative <sup>1</sup>
Total Nitrogen as N (mg/kg)	Monitor and Report		1/60 days	Representative <sup>1</sup>
Total Phosphorus as P (mg/kg)	Monitor and Report		1/60 days	Representative <sup>1</sup>
Potassium as K (mg/kg)	Monitor and Report		1/60 days	Representative <sup>1</sup>
Process to further reduce pathogens	15 days at 35 to 60° C		1/60 days	Operations Log <sup>2</sup>
Vector Attractant Reduction Alternative	38% Volatile Solids Reduction		1/60 days	Calculated <sup>3</sup>

**TABLE I.A.3 NOTES:**

1. A representative sample consists of a dry weight grab sample.
2. Provide brief information from the Operations log as support.
3. Per "Environmental Regulations and Technology--Control of Pathogens and Vector Attraction in Sewage Sludge" EPA-625/R-92/013.

mg/kg: milligrams per kilogram, dry-weight basis.

as K: as potassium.

- b. The Permittee shall ensure that all biosolids generated at the facility shall be used or disposed of in compliance with the applicable sections of the following regulations whether the Permittee uses or disposes of the biosolids or transfers them to another party for further treatment, use, or disposal. Regulations applicable for the proper treatment, handling, or disposal of biosolids include:
  - i. 40 CFR 503: for non-hazardous biosolids that are land applied, placed in surface disposal sites (dedicated land disposal sites or monofills), or incinerated;
  - ii. 40 CFR 258: for biosolids disposed in municipal solid waste landfills as approved by the Administrator and the County;



- iii. 40 CFR 257: for all biosolids use and disposal practices not covered under 40 CFR 258 or 503; and
  - iv. 40 CFR 261: for hazardous biosolids or 40 CFR 761 for biosolids with a polychlorinated biphenyl (PCB) concentration greater than 50 milligrams per kilogram (mg/kg).
- c. The Permittee is responsible for informing any person or entity that prepares, applies, or disposes of biosolids of the requirement to comply with the applicable regulations listed in Parts I.A.1 and I.A.25.
  - d. If biosolids are stored at any facility for over two (2) years from the time they are generated, the Permittee shall notify the Division within 30 days and shall ensure compliance with all requirements of surface disposal set forth in 40 CFR 503, Subpart C. Otherwise, the Permittee must submit a written notification to the Division and the EPA providing the information required in 40 CFR 503.20 (b) and demonstrating the need for longer temporary storage.
  - e. Biosolids treatment, storage, or disposal facilities shall be designed to divert stormwater run-on accommodating conditions representing a 100-year storm event, including engineering controls designed to prevent any erosion which could cause biosolids to discharge (run-off) from the facility.
  - f. The Permittee shall ensure that transporters of biosolids use all necessary measures to contain biosolids material during transport.
  - g. Biosolids shall be characterized annually pursuant to 40 CFR 261 to determine if they are hazardous.
  - h. The Permittee shall comply with the following notification requirements either directly or through contractual arrangements with a biosolids management contractor:
    - i. If biosolids are shipped to another state or to Indian territories, the Permittee shall send notice of the shipment to the appropriate state permitting authority(ies), the collaborating EPA Regional office, and/or the Indian authority(ies) with jurisdiction over the receiving location; and
    - ii. For land application of biosolids, the Permittee must notify the Division 180 days prior to shipment to enable the receiving site to obtain a permit.
- I.A.3 **Treatment Efficiency:** In addition to the effluent discharge limits specified, the Permittee shall demonstrate that the 30-day average removal efficiency is not less than 85% for 5-day biochemical oxygen demand, uninhibited, and for total suspended solids.
- I.A.4 **Waste Load Allocations:** The Permittee is authorized to discharge the waste loads listed in Table I.A.4 for Total Nitrogen as N, Total Dissolved Solids and Total Phosphorus as P, to the Truckee River. The Waste Load Allocation (WLA) applies to the loading from Outfall 001. This permit condition constitutes a cooperative

agreement between TMWRF, Vista Canyon Group LLC, NV0020893, and the City of Sparks -Sparks Marina Park, NV0022918, (hereinafter Dischargers) to allow discharge flexibility. Each discharger has an Individual Waste Load Allocation (IWLA) and there is a Sum of Individual Waste Load Allocations ( $\Sigma$ IWLA) defined below for the three dischargers. The Individual Discharger shall have first rights to the assigned IWLA. Any remaining allocation may be shared by the three agreeing Dischargers. No Discharger shall be penalized for the IWLA violations of the other Dischargers.

Treatment facilities which are used to attain an IWLA are not required to be operated when not needed to meet that allocation.

- a. The Permittee shall be considered in compliance if either:
  - i. The Permittee does not exceed the IWLA listed below or the IWLA in effect due to reallocations, or
  - ii. The  $\Sigma$ IWLA listed below is not exceeded.

**Table I.A.4.**

CONSTITUENT (lbs/day)	TMWRF IWLA	Vista Canyon Group IWLA	Sparks Marina Park IWLA	$\Sigma$ IWLA	TMDL at Lockwood
Total Nitrogen as N <sup>1</sup>	500	16.7	33.3	550	1,000
Total Phosphorus as P	134	4.75	0	138.75	214
Total Dissolved Solids <sup>2</sup>	120,168 <sup>3</sup>	9,730	19,390	149,288	900,528

**TABLE I.A.4 NOTES:**

- <sup>1</sup>: 30-day Average Load will be reported monthly. Compliance will be determined based on 30-day Average Load May 1 through October 31, and Annual Average Load (12-calendar month average), to be reported in the 4<sup>th</sup> quarter DMR.
- <sup>2</sup>: Annual Average Load. The annual average load will be calculated as the average of the 12 monthly average loads of a calendar year. If the average weekly flow in the Truckee River at the USGS gaging station at Farad, #10346000, is less than 150 cfs, the Permittee may substitute that month's load with a load based on the following calculation in determining the annual average:  
  

$$\text{Monthly Load} = (\text{monthly average effluent flow, MGD}) \times ((360 \text{ mg/L, or the actual TDS concentration, mg/L, if lower}) \times (8.345).$$
- <sup>3</sup>: Monthly load as described above will be reported each month. Compliance will be determined based on the annual average load, which will be reported in the 4<sup>th</sup> quarter DMR.

- b. **Annual Reallocation of IWLA:** On an annual basis, the Permittee may modify the IWLA by either transferring or receiving waste load from another discharger in possession of a Truckee River IWLA. This reallocation shall become effective upon submittal of a notification signed by the transferring and the receiving dischargers. The annual reallocation shall be submitted with the fourth quarter Discharge Monitoring Report (DMR). The notification of reallocation shall include the 30-day average flow rate for the prior 12-month period; the 30-day average waste load discharged for each allocated parameter



for the prior 12-months; and the corresponding average monthly treatment plant removal efficiency for the prior 12-month period in tabular and graphical format. The reallocation of IWLAs shall be considered a minor modification to the permit as long as the  $\Sigma$ IWLA is not modified.

- c. **Temporary Transfer of IWLA:** The Permittee may temporarily trade IWLA upon submittal of a notification signed by the transferring and the receiving dischargers describing the amount of IWLA transferred, the length of time the transfer is effective and the basis for the transfer. The basis for the transfer shall include the last monthly flows and waste load discharged for both dischargers. The IWLA transfer shall be effective on the date of the submittal to the Division.

Any designated transfer is binding on the dischargers and cannot be revoked without a notification signed by the transferring and the receiving dischargers. The transferred IWLA shall revert back to the original holder of the IWLA at the end of the time specified on the notification. A copy of the latest IWLA agreement and any agreements made during the reporting period shall be submitted with each quarterly report required by I.B.2.

- d. **Reporting:** The Permittee shall submit quarterly reports pursuant to I.B.2, the IWLA and the  $\Sigma$ IWLA for total nitrogen as N, total phosphorous as P and total dissolved solids, reported monthly in lb/day. The data for the  $\Sigma$ IWLA shall be provided to and obtained from the other dischargers. In the event the Permittee cannot obtain the  $\Sigma$ IWLA information in time for submittal with the quarterly DMR, then an explanation shall be included with the report along with a schedule for timely submittal.
- e. **Re-evaluation:** Due to operational changes in the water supply system or implementation of conservation measures that impact the plant influent TDS loadings, the Permittee's TDS IWLA may be re-evaluated and modified to reflect the impacts of these activities on permit compliance.

I.A.5 **Water Quality Offset Projects:** The Division may modify the permit to include specific water quality offset projects, based upon review of the results of scientific studies, as a major modification. Water quality offset entails the reduction in a pollutant load through implementation of a water quality management project that is credited towards the Permittee's IWLA, thereby increasing the Permittee's allowable discharge load for a specific pollutant. Potential water quality offset opportunities include, but are not limited to, water augmentation, river restoration, septic system conversion, and stormwater management practices. These potential water quality management projects will be evaluated as to their effectiveness through watershed/water quality modeling simulations, field pilot studies and on-going water quality monitoring. Based on the results of the model simulations and pilot projects, the permit may be modified to incorporate the Permittee's increased IWLA(s).

I.A.6 **Seasonal Discharge:** If the Truckee River Total Maximum Daily Load is modified to authorize the use of seasonal IWLAs, the Division will modify the permit, as a minor modification, to incorporate a seasonal discharge or flow-based IWLA for TN and/or other constituents, as appropriate.

**I.A.7 TRC and pH Effluent Limitations:** Effluent shall be sampled at the outfall structure prior to mixing with Steamboat Creek.

Where the Permittee monitors TRC or pH of the effluent continuously, the Permittee shall maintain the TRC limit and pH within the range set forth in the applicable effluent limitations guidelines, except excursions from the limit or range are permitted subject to the following limitations:

- a. The total time during which the TRC value is above the required limit, or the pH values are outside the required range, the values shall not exceed a total of 7 hours and 26 minutes in any calendar month; and
- b. No individual excursion from the TRC limit or pH range shall exceed 60 minutes in duration.

The Division may allow the Permittee to discontinue monitoring for chlorine upon approval of a submittal which demonstrates that there is no reasonable potential for the chlorine concentrations to be toxic.

**I.A.8 Narrative Standards:** Per Nevada Administrative Code (NAC) 445A.121, discharges shall not cause the following standards to be violated in any surface waters of the State. Waters must be free from:

- a. Substances that will settle to form sludge or bottom deposits in amounts sufficient to be unsightly, putrescent, or odorous;
- b. Floating debris, oil, grease, scum, and other floating materials in amounts sufficient to be unsightly;
- c. Materials in amounts sufficient to produce taste or odor in the water, detectable off-flavor in the flesh of fish, or in amounts sufficient to change the existing color, turbidity, or other conditions in the receiving stream to such a degree as to create a public nuisance;
- d. High temperature; biocides; organisms pathogenic to human beings; or toxic, corrosive, or other deleterious substances at levels or combinations sufficient to be toxic to human, animal, plant, or aquatic life;
- e. Radioactive materials resulting in accumulations of radioactivity in plants or animals hazardous or harmful to humans or aquatic life;
- f. Untreated or uncontrolled wastes or effluents that are reasonably amenable to treatment or control; and
- g. Substances or conditions which interfere with the beneficial use of the receiving waters.

Narrative standards are not considered violated when the natural conditions of the receiving water are outside the established limits, including periods of high or low



flow. Where effluents are discharged to such waters, the discharges are not considered a contributor to substandard conditions provided maximum treatment in compliance with permit requirements is maintained.

- I.A.9 **Stream and River Monitoring:** The Permittee shall actively participate in an overall watershed monitoring program and is responsible to support the plan listed as Attachment B (**TMWRF Stream and River Monitoring Plan**). Upon coordination with the signatories of the Memorandum of Understanding for the Development and Maintenance of the Truckee River Coordinated Monitoring Program, adopted in June 2009, and with Division approval, this plan may be adjusted as a minor permit modification. A summary of stream and monitoring data collected during each calendar year shall be submitted to the Division by **June 1<sup>st</sup>** of the year following data collection, as required in Part I.B.2.vi.
- I.A.10 **Schedule of Compliance:** The Permittee shall implement and comply with the provisions of the schedule of compliance after approval by the Administrator, including in said implementation and compliance, any additions or modifications which the Administrator may make in approving the schedule of compliance.
- a. The Permittee shall achieve compliance with the effluent limitations upon issuance of the permit.
  - b. **By August 8, 2012**, the Permittee shall submit to the Division for review and approval a revised Operations and Maintenance (O&M) Manual, compiled in accordance with Division guidance document WTS-2, "*Minimum Information Required for an Operation and Maintenance Manual for a Wastewater Treatment Plant*". The revised O&M Manual shall also include an updated emergency notification plan.
  - c. The Permittee shall submit reports illustrating compliance or noncompliance with specified compliance dates no later than 14 days of any respective, scheduled compliance date.

All compliance deliverables shall be sent to the following address:

**Department of Conservation and Natural Resources  
Division of Environmental Protection  
Bureau of Water Pollution Control  
901 S. Stewart Street, Suite 4001  
Carson City, Nevada 89701**

- I.A.11 **Annual Fee:** The Permittee shall remit an annual review and services fee in accordance with NAC 445A.232 starting **July 1, 2012** and every year thereafter until the permit is terminated.
- I.A.12 **Odors:** There shall be no objectionable odors from the collection system, treatment facility, or the biosolids treatment and storage area.
- I.A.13 **Visibility Parameters:** There shall be no discharge of floating solids. Discharge of visible foam shall be minimized with no foam, other than trace amounts, reaching the Truckee River.

- I.A.14 **Facility Specifications:** The collection, treatment, and disposal facilities shall be constructed in conformance with plans approved by the Administrator of the Division or of the Environmental Protection Agency (EPA) Region IX (Administrator). The plans must be approved by the Administrator prior to initiating construction activities. All changes to plans that have been approved by the Administrator must be re-approved by the Administrator prior to implementation.
- I.A.15 **Facility Maintenance:** The facility shall be maintained in conformance with the plans approved by the Division, Bureau of Water Pollution Control. The Division must authorize all changes to the approved plans prior to implementation.
- I.A.16 **Process Operations and Maintenance:** The facility shall be operated in accordance and compliance with permit revisions and requirements, and in accordance with the Operations and Maintenance (O&M) Manual, which must be approved by the Division. The O&M Manual shall be updated whenever there is a change in the operation of the facility.
- I.A.17 **Construction Integrity:** Any and all containment structures shall remain free of leaks and defects.
- I.A.18 **Security:** The treatment and disposal facility shall be fenced and posted for hazard notification, with access restricted.
- I.A.19 **Zone of Passage:** The zone of mixing shall allow a zone of passage as defined by NAC 445A.299.
- I.A.20 **Remediation Activities:** All groundwater and/or soil contamination issues shall be addressed in accordance with the requirements of the Division.
- I.A.21 **Closure Activities:** Closure of all inactive process components shall be addressed in accordance with the requirements of the Division.
- I.A.22 **Presumption of Possession and Compliance:** Copies of this permit, any subsequent modifications, and the approved O&M Manual shall be maintained at the permitted facility at all times.
- I.A.23 **Reopener Clause:** This permit may be reopened and modified by the Division to incorporate results of changes made to water quality standards, total maximum daily loads, wasteload allocations, or in response to additional scientific evidence as a minor modification.
- I.A.24 **Stormwater Management Plan:** All *Stormwater Discharges Associated with Industrial Activity*, as defined in Code of Federal Regulations (CFR) 122.26 (b)(14), that are not otherwise controlled under this permit shall be covered by a separate stormwater permit for those discharges. Stormwater permit coverage must be obtained prior to the occurrence of a stormwater discharge associated with industrial activity.
- I.A.25 **Solid Waste Management:** All solid, toxic, or hazardous waste shall be properly handled and disposed of pursuant to applicable laws and regulations. Any sludge generated during this operation shall be characterized and disposed of in accordance with local, State, and Federal regulations.



I.A.26 **Certified Operator:** The treatment facility shall be operated by a Nevada Certified Class IV Operator (NAC 445A.290).

- a. All wastewater treatment plant operators employed to operate the Facility shall possess a current State of Nevada Wastewater Treatment Plant Operator Certificate or obtain an Operator in Training Certificate within one year of hire. All Operator Certificates and/or Operator-in-Training Certificates shall be current and active according to the by-laws of the Nevada Water Environment Association and Nevada Wastewater Treatment Plant Operators Certification Control Board.
- b. Wastewater Treatment Plant Operators for the Facility shall possess the operator certificates in accordance with the following schedule:
  - i. The person of direct responsible charge shall possess a Nevada Grade IV Wastewater Treatment Plant Operator Certificate (NAC 445A.290.3.(b)).
  - ii. The person in direct responsible charge for the Operations shall possess a Nevada Grade IV Wastewater Treatment Plant Operator Certificate (NAC 445A.290.3.(c)).
  - iii. All persons responsible for shift supervision in Operations shall possess a minimum Nevada Grade III Wastewater Treatment Plant Operator Certificate (NAC 445A.290.3.(a)).

I.A.27 **Whole Effluent Testing:** Beginning with the effective date of this permit, the Permittee shall conduct monthly acute toxicity tests and quarterly chronic toxicity tests, as described below, on the discharge from Outfall 001.

- a. **Acute Toxicity Limit:** The effluent shall be deemed acutely toxic when there is a statistically significant difference at the 95<sup>th</sup> percentile confidence interval between the survival of the control test organisms exposed to 0% effluent and the survival of the test organisms exposed to 100% effluent at the following limits:
  - i. When the survival of test organisms in the undiluted effluent (100%) sample is less than 90 percent in six (6) out of eleven (11) consecutive samples; or
  - ii. When the survival rate of test organisms in the undiluted effluent (100%) sample is less than 70 percent in any two (2) of eleven (11) consecutive samples.
- b. **Test Methods:**
  - i. Flow Through and Static Replacement Protocols: The acute flow through or static replacement tests shall be conducted in general accordance with the procedures set out in the latest revision of "Methods for Measuring the Acute Toxicity of Effluents and

Receiving Waters to Freshwater and Marine Organisms, 5<sup>th</sup> Edition", EPA-812-R-02-012. The Permittee shall conduct an acute 48-hour flow through or static replacement toxicity test using any Daphnid approved by the Division and an acute 96-hour flow through or static replacement toxicity test using fathead minnows, (*Pimephales promelas*). The source of the dilution water shall be reported with the test results.

- ii. Alternative Species and Protocols: The Permittee may undertake an investigation of alternative, site-specific toxicity test species and/or alternative, site-specific toxicity protocols. If alternative, site-specific toxicity test species or protocols are developed as a result of work by the Permittee, such species or protocols may be substituted for those specified in this permit if approved by the Division and EPA under 40 CFR Part 136. Alternative protocols must be compared to EPA protocols to demonstrate appropriateness and reliability.

c. **Testing Schedule:**

- i. Routine Schedule: The Permittee shall conduct an acute toxicity test during the first two weeks of the calendar month.
- ii. Accelerated Schedule: Whenever the result of any one test has a survival of less than 70 percent, the Permittee shall increase the frequency of acute toxicity testing to every other week. The accelerated testing shall be based on definitive tests using serial dilutions to determine the 'No Observed Adverse Effects Concentration' (NOAEC).

The concentration range of the dilution series must include or contain the critical dilution defined as the in-stream waste concentration (IWC) determined under low-flow conditions. Where the calculated NOAEC for growth and survival is equal to or greater than the critical dilution in four (4) consecutive accelerated tests, the Permittee may resume a routine test schedule.

- d. **Follow-Up Responses**: Whenever the acute toxicity effluent limitation as defined under either Part I.A.27.a.i or I.A.27.a.ii is exceeded, and one or more of the tests conducted under Part I.A.27.c.ii fails, the Permittee shall:

- i. Initiate an investigation within 24 hours of the exceeded toxicity limitation to identify the cause(s) of toxicity in general accordance with EPA/600/6-91/003, EPA/600/3-88/035, other EPA guidance documents or manuals and any subsequent revisions, and/or alternative methods if approved by the Division.

After the initiation of the investigation phase pursuant to this condition, the Permittee may suspend accelerated testing required by Part I.A.27.c.ii as long as the routine testing required by Part I.A.27.c.i resumes.



- ii. Conduct an evaluation of findings, when relevant and/or appropriate, in general accordance with EPA/600/R-92/081, other EPA guidance documents or manuals and any subsequent revisions and/or alternative methods, if approved by the Division; and
- iii. Notify the Division and EPA within fifteen (15) days of identifying an exceeded toxicity limitation to provide the following information:
  - 1. Times and dates when the limitation was exceeded;
  - 2. The findings and conclusions of the investigation(s) to identify the cause(s) of toxicity and a plan for continuing the investigation activities if initial data and information is inconclusive;
  - 3. Proposed actions the Permittee has taken or will take to mitigate the impact of the discharge, to correct the noncompliance, and to prevent the recurrence of toxicity; and
  - 4. Where corrective actions have not been completed, an expeditious schedule to implement all corrective actions.
- e. **Prerogative to Reopen:** This permit may be re-opened, re-evaluated, and modified by the permitting authority to include effluent limits, additional testing, and/or other appropriate actions in response to demonstrated effluent toxicity. This permit may also be re-evaluated and modified by the permitting authority to incorporate alternative permit conditions reflecting revisions related to effluent toxicity under State Water Quality Standards.
- f. **Annual Survival Summary:** In addition to the quarterly DMR submittals, the Permittee shall submit an annual summary which provides a review of the survival rates of both the control and the 100% effluent. The summary shall be submitted by May 31<sup>st</sup> of each year.
- g. **Chronic Toxicity:** The Permittee shall conduct a chronic toxicity study using *Ceriodaphnia dubia* and fathead minnows, *Pimephales promelas*, to identify pollutants that may require additional controls under the pretreatment program, Part I.A.28.
  - i. The Permittee shall submit a study plan within ninety (90) days from the date of issuance of this permit for concurrence by the Division.
  - ii. The study will include the following:
    - 1. Chronic toxicity testing to be conducted at least once per quarter over a two year period following concurrence of the study plan by the Division.
    - 2. Samples of wastewater shall be taken at the same location as the effluent compliance samples, unless otherwise approved in

writing by the Division.

3. If chronic toxicity is identified, using appropriate statistical procedures or other evaluation methods acceptable to the Division, the Permittee may either increase testing frequency to monthly or conduct a toxicity identification evaluation (TIE). If, after two additional months of testing the chronic toxicity has abated, the Permittee may return to quarterly testing. If it has not, the Permittee shall continue accelerated testing, conduct a TIE, or submit an alternate proposal to the Division for approval.
  4. Chronic toxicity testing shall be conducted in accordance with procedures specified in 40 CFR Part 136.
  5. TIEs shall be conducted in accordance with procedures set forth in *Toxicity Identification Evaluations: Characterization of Chronically Toxic Effluent, Phase I*, EPA/600/6-91/003, USEPA, 1991A; and *Toxicity Reduction Evaluation Protocol for Municipal Wastewater Treatment Plants*, EPA/600/2-88/062, USEPA, 1989A, as appropriate.
- iii. The Permittee shall take appropriate actions to address any pollutant of concern identified through this study.
  - iv. A report on the study shall be submitted to the Division within ninety (90) days of completion of the testing. The Permittee and the Division will review the information and any subsequent actions taken by the Permittee to assess the results and determine what actions, e.g., additional chronic toxicity testing, are necessary and appropriate.
  - iv. The data collected through this study, and through the chronic toxicity testing and TIE procedures, are for informational purposes only and shall not be used to assess compliance or in an enforcement action against the Permittee.

**I.A.28 Pretreatment of Industrial Wastewaters:** The Permittee shall implement and enforce a pretreatment program under 40 CFR Part 403, including any subsequent regulatory revisions to Part 403, and shall be responsible and liable for the performance of all Control Authority pretreatment requirements contained in Part 403. Where Part 403 or subsequent revisions place mandatory actions upon the Permittee as Control Authority, but does not specify a schedule for the completion of the actions, the Permittee shall complete the required actions within six (6) months from the issuance date of this permit or the effective date of the Part 403 revisions, whichever comes later.

For violations of pretreatment requirements, the Permittee shall be subject to enforcement actions, penalties, fines, and other remedies required by the EPA or other appropriate parties, as provided in the Act. EPA may initiate enforcement action against a non-domestic user for noncompliance with applicable standards and



requirements as provided in the Act and as provided by the Division and EPA in the enforcement agreement.

- a. The Permittee will comply with the Pretreatment Program submitted to and approved by the EPA. This program shall include written agreements with all sewage agencies contributing flows to the treatment facility that clearly affords the Permittee with the legal authority to enforce the pretreatment program. The Permittee shall comply with all parts of the schedule listed below, Pretreatment of Industrial Wastewaters.
- b. The Permittee shall enforce the requirements promulgated under 40 CFR Part 307(b) and (c) and 40 CFR Part 402(b) of the Act with timely, appropriate, and effective enforcement actions. The Permittee shall cause all non-domestic users subject to Federal, categorical standards to achieve compliance no later than the date specified in those requirements or, in the case of a new non-domestic user, upon commencement of the discharge.
- c. The Permittee shall perform the pretreatment functions as required in Part 403 including, but not limited to:
  - i. Implementing the necessary legal authorities as provided in Part 403.8(f)(1);
  - ii. Enforcing the pretreatment requirements under Part 403.5 and 6;
  - iii. Implementing the programmatic functions as provided in Part 403.8(f)(2); and
  - iv. Providing the requisite funding and personnel to implement the pretreatment program as provided in Part 403.8(f)(3).

I.A.29 **Premise of Discharge:** The Permittee shall not cause any impairment to any receiving water or the designated beneficial uses of any receiving water, nor cause a violation of any other provision of this permit, the Clean Water Act, and State or local regulation or law.

## **I.B. MONITORING AND REPORTING**

### **I.B.1. Monitoring:**

- a. **Representative Samples:** Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.
- b. **Test Procedures.** Analyses shall be conducted by a "certified laboratory" using an "approved method of testing", as defined in NAC 445A.0564 and NAC 445A.0562, respectively.
- c. **Recording the Results:** For each measurement or sample taken pursuant to the requirements of this permit, the Permittee shall record the following information:

- i. The exact place, date, and time of sampling;
  - ii. The dates the analyses were performed;
  - iii. The person(s) who performed the analyses;
  - iv. The analytical techniques or methods used; and
  - v. The results of all required analyses, including reporting limits.
- d. **Additional Monitoring by Permittee:** If the Permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in any calculation and/or reported value required in this permit. Such increased frequency shall also be indicated in required reports.
- e. **Records Retention:** All records and information resulting from monitoring activities; the permit application; and reporting required by this permit, including all records of analyses performed, calibration and maintenance of instrumentation, and recordings from continuous monitoring instrumentation shall be retained for a minimum of five (5) years or longer if required by the Administrator. Records of monitoring information required by this permit related to the Permittee's sewage sludge use and/or disposal activities shall be retained for a period of at least 5 years or longer as required by 40 CFR 503.
- f. **Reporting Limits.** Unless otherwise allowed by the Division, the approved method of testing selected for analyses shall have a reporting limit which is:
- i. Half or less of the discharge limit; or, if there is no limit,
  - ii. Half or less of the applicable water quality criteria; or, if there is no limit or criteria, or if the applicable water quality criteria is lower than the appropriate lowest reasonably obtainable reporting limit using an approved test method,
  - iii. The lowest reasonably obtainable using an approved test method.
- g. **Modification of Monitoring Frequency and Sample Type:** After considering monitoring data, stream flow, discharge flow, and receiving water conditions, the Administrator may, for just cause, modify the monitoring frequency and/or sample type by issuing an order to the Permittee.
- h. **Definitions:**
- i. Daily maximum: is the highest measurement made or obtained during the monitoring period.
  - ii. 30-day average discharge: means the total discharge during a month divided by the number of samples in the period that the facility was discharging. Where less than daily sampling is required by this



permit, the 30-day average discharge shall be determined by the summation of all the measured discharges divided by the number of samples during the period when the measurements were made.

- iii. 30-day average concentration: means the arithmetic mean of measurements made during a month (other than for fecal coliform bacteria). The "30-day average concentration" for fecal coliform bacteria means the geometric mean of measurements made during a month. The geometric mean is the " $n^{\text{th}}$ " root of the product of " $n$ " numbers. Geometric mean calculations where there are non-detect results for fecal coliform shall use a value of one half the detection limit to represent the non-detect results.
- iv. "Discrete" sample: means any individual sample collected in less than 15 minutes.
- v. "Composite" sample: (for flow rate measurements) means the arithmetic mean of at least six (6) individual measurements taken at equal time intervals for 24 hours or for the duration of discharge, whichever is shorter.
- vi. "Composite" sample: (for other than flow rate measurements) means a combination of at least six (6) individual flow-weighted samples obtained at equal time intervals for 24 hours or for the duration of discharge, whichever is shorter. Flow-weighted sample means that the volume of each individual sample shall be proportional to the discharge flow rate at the time of sampling.
- vii. Acute toxicity: is defined in the whole effluent testing procedures described in Part I.A.27.a.
- viii. Biosolids: are non-hazardous sewage sludge or domestic septage as defined in 40 CFR 503.9.
- ix. Annual average: is the average of the 12 monthly averages of a calendar year.

I.B.2. **Reporting:** Analytical data and monitoring results shall be summarized, tabulated, and/or graphically illustrated for presentation in standardized Discharge Monitoring Reports (DMRs). The Permittee is considered compliant if the reported results are less than established permit limits. If there is no discharge during a reporting period, report this condition as 'no discharge' on the DMR for that period. If applicable, if groundwater wells are dry, report this condition as 'dry' on the DMR for that period. Laboratory reports for quantitative analyses conducted by State of Nevada certified laboratories must accompany all report submittals.

DMRs shall be received by the 28<sup>th</sup> day of the month following the third month of each quarter (reporting period). Quarterly and annual reporting periods are based on the standard annual cycle, January 1 through December 31. The first report under this renewed permit is due on **July 28, 2012**.

Each report submittal (DMR) must be signed by the highest ranking certified operator or the person directly responsible for operating the facility. The first report submitted under this permit must include the written designation of the certified operator or an eligible facility representative authorized to sign DMRs or other periodic report submittals. If the certified operator or facility representative in responsible charge changes, a new designation letter must be submitted.

- a. **Quarterly Reports:** Quarterly reports shall be submitted for the quarterly periods corresponding to: January 1 through March 31, April 1 through June 30, July 1 through September 30, and October 1 through December 31.

- i. DMRs: Each DMR shall include:

1. Monitoring results for effluent discharge parameters described pursuant to Part I.A. of the permit shall be summarized and tabulated for each three (3) month, quarterly period;
2. The 30-day removal efficiency for each month of the preceding quarter;
3. Monitored analyte concentrations in dry sludge; and

- ii. Pretreatment of Industrial Wastewaters - Quarterly Significant Industrial Users (SIU) Compliance Status Reports: These reports shall be submitted with DMRs by the 28<sup>th</sup> day of the month following the previous quarter, except the quarterly report covering April 1 through June 30, which may be included in the **annual** report due by **September 28<sup>th</sup>** of each year. SIU compliance status reports shall contain:

1. The name and address of all SIUs which violated any discharge or reporting requirements during the quarter;
2. A description of any violations including whether any discharge violations were for categorical standards or local limits;
3. A description of enforcement or other actions that were taken to remedy the noncompliance; and
4. The status of active enforcement and other actions taken in response to SIU noncompliance identified in previous reports.

- b. **Annual Reports:**

- i. DMRs: The fourth quarter DMR report shall be prepared as an annual report and shall contain a plot of concentration (y-axis) versus date (x-axis) for each analyzed effluent discharge and biosolids constituent defined or limited in Part I.A. The plot shall include data from the preceding five (5) years or from the effective date of the permit whichever is shorter. Any data point from the current year that is



greater than the limits in Part I.A. must be explained by a narrative. In addition, an annual report prepared by the Nevada State certified laboratory providing Whole Effluent Toxicity testing data and services shall also be submitted with the fourth quarter/annual DMR.

ii. Annual Biosolids Monitoring Report (ABMR): By **February 19<sup>th</sup>** of each year, the Permittee must submit an ABMR for the previous calendar year. The report shall contain:

1. All the required biosolids analytical data;
2. The volume of biosolids generated that previous year;
3. Any volume of biosolids accumulated from previous years;
4. The names, mailing and street addresses, and telephone numbers of all facilities which received biosolids for storage, disposal, use, treatment, land application, or any other use or disposal mechanism not mentioned; and
5. An evaluation of the pretreatment program limits determining if the limits are adequate to achieve threshold metals concentrations established in 40 CFR 503.13 Table 3. The evaluation shall include final conclusions and any recommended actions to be taken in the pretreatment program.

If the metals concentrations of the biosolids are at or below the pollutant concentration limits, the Permittee may submit a screening level analysis as the annual evaluation of the pretreatment program limits for a maximum of four of the five years of this permit.

iii. Pretreatment Annual Report: By **September 28<sup>th</sup>** of each year, the Permittee shall submit a report describing the facility pretreatment activities and operations over the previous year, July 1<sup>st</sup> through June 30<sup>th</sup>. In the event the Permittee is not in compliance with any conditions or requirements of this permit, then the Permittee shall comply with such conditions and requirements. The report shall contain, but is not limited to, the following information:

1. A summary of the analytical results from representative, flow-proportioned, 24-hour composite sampling of the influent and effluent through the Publicly Owned Treatment Works (POTW) for those pollutants that EPA has identified under Section 307(a) of the Act to be known or suspected to be discharged by non-domestic users. This will consist of a full scan of the priority pollutant list as maintained by USEPA, with quarterly effluent samples analyzed only for those pollutants detected in the influent full scan, per Table I.A.2. The Permittee is not required to sample and analyze for asbestos until EPA specifies an analytical method. Biosolids shall be sampled during the same 24-hour period and analyzed

for the same pollutants as the influent and effluent sampling and analysis. The biosolids sample shall be a discrete sample taken during the time of influent and effluent analysis. Wastewater and biosolids sampling and analysis shall be performed a minimum of once per quarter.

The Permittee shall also provide any influent, effluent or biosolids monitoring data for non-priority pollutants which the Permittee believes may be causing or contributing to interferences, pass through or adversely impacting biosolids quality. Sampling and analysis shall be performed using the techniques prescribed in 40 CFR 136;

2. A discussion of upset, interference, or pass through incidents, if any, at the treatment plant, which the Permittee knows or suspects were caused by non-domestic users of the POTW system. The discussion shall include the reasons why the incidents occurred, the corrective actions taken, and, if known, the name and address of the non-domestic user(s) responsible. The discussion shall also include a review of the applicable pollutant limitations to determine whether any additional limitations or changes to existing requirements may be necessary to prevent pass through, interference, or non-compliance with biosolids disposal requirements;
3. An update of the Permittee's significant industrial users (SIUs), including their names and addresses, and a list of deletions, additions, and SIU name changes keyed to the previously submitted list. The Permittee shall provide a brief explanation for each change. The list shall identify the SIUs subject to federal categorical standards by specifying which set(s) of standards are applicable to each SIU. The list shall also indicate which SIUs are subject to local limitations;
4. The Permittee shall characterize the compliance status of each SIU by providing a list or table, which includes the following information:
  - A). Name of the SIU;
  - B). Category, if subject to federal categorical standards;
  - C). The type of treatment or control process in place;
  - D). The number of samples per year taken by the POTW;
  - E). The number of samples per year taken by the SIU;
  - F). For an SIU subject to discharge requirements for total toxic organics, whether all required certifications were provided;
  - G). A list of the standards violated during the year, which also identifies whether the violations were for categorical standards or local limits;
  - H). Whether the facility is in significant noncompliance



(SNC) as defined at 403.12(f)(2)(vii) at any time during the year; and

- I). A summary of enforcement or other actions taken during the year to return the SIU to compliance. Describe the type of action, final compliance date, and the amount of fines and penalties collected, if any. Describe any proposed actions for bringing the SIU into compliance;
  5. A brief description of any programs the POTW implements to reduce pollutants from non-domestic users that are not classified as SIUs;
  6. A brief description of any significant changes in operating the pretreatment program which differ from the previous year including, but not limited to, changes concerning the administrative structure of the program, local limits, monitoring program or monitoring frequencies, legal authority, enforcement policy, funding levels, or staffing levels;
  7. A summary of the annual pretreatment budget including the cost of the pretreatment program functions and equipment purchases; and
  8. A summary of activities to involve and inform the public of the program including copies of newspaper notices, if any, required under 403.8(f)(2)(vii).
- iv. **Total Dissolved Solids Report:** By **February 28<sup>th</sup>** of each year, the Permittee shall submit a report summarizing in a tabular form, the past year of total dissolved solids (TDS) data and specifying the annual average TDS load.
  - v. **Annual Toxicity Survival Summary:** Per part I.A.27.f, by **June 1<sup>st</sup>** of each year the Permittee shall submit a report summarizing the past year of Whole Effluent Toxicity (WET) testing results.
  - vi. **Annual Stream and River Monitoring Summary:** By **June 1<sup>st</sup>** of each year, the Permittee shall submit a report summarizing the previous year stream and river monitoring results, as outlined in the Stream and River Monitoring Plan (Appendix B) required under Part I.A.10, Schedule of Compliance.
- c. **Compliance Reports:** Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each scheduled date.
  - d. **Other Information:** Where the Permittee becomes aware of failure to submit any relevant facts in a permit application or the submittal of incorrect information in a permit application or in any report to the Administrator, the

Permittee shall promptly submit such facts or information.

- e. **Planned Changes:** The Permittee shall give notice to the Administrator as soon as possible of any planned alterations or additions to the permitted facility. Notice is required only when the alteration or addition to a permitted facility:
  - i. May meet one of the criteria for determining whether a facility is a new source (40 CFR 122.29(b));
  - ii. Could significantly change the nature or increase the quantity of pollutants discharged; or
  - iii. Results in a significant change to the Permittee's sludge management practice or disposal sites.
- f. **Anticipated Noncompliance:** The Permittee shall give advance notice to the Administrator of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

An original, signed copy of these, and all other reports required herein shall be submitted to the State at the following address:

**Division of Environmental Protection  
Bureau of Water Pollution Control  
901 S. Stewart Street, Suite 4001  
Carson City, Nevada 89701**

A signed copy of the reports required per I.A.2 and I.A.28 shall be submitted to the Regional Administrator at the following address:

**U.S. Environmental Protection Agency, Region IX  
NPDES/DMR WTR-7  
75 Hawthorne Street  
San Francisco, California 94105**

**I.B.3. Signatory Certification Required on Application and Reporting Forms:**

- a. All applications, reports, or information submitted to the Administrator shall be signed and certified by making the following certification:

*"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."*



- b. All applications, reports, or other information submitted to the Administrator shall be signed by one of the following:
  - i. A principal executive officer of the corporation (of at least the level of vice president) or his authorized representative who is responsible for the overall operation of the facility from which the discharge described in the application or reporting form originates;
  - ii. A general partner of the partnership;
  - iii. The proprietor of the sole proprietorship; or
  - iv. A principal executive officer, ranking elected official, or other authorized employee of the municipal, state, Federal, or other public facility.
- c. If an authorization under Part I.B.3.b is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part I.B.3.b must be submitted to the Administrator prior to or together with any reports, information, or applications to be signed by an authorized representative.

## **PART II**

### **II.A. MANAGEMENT REQUIREMENTS**

- II.A.1. Change in Discharge:** All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than, or at a level in excess of, that authorized shall constitute a violation of the permit.

Any anticipated facility expansions or treatment modifications which will result in new, different, or increased discharges of pollutants must be reported by submission of a new application or, if such changes will not violate the effluent limitations specified in this permit, by notice to the permit-issuing authority of such changes. Any changes to the permitted treatment facility must comply with NAC 445A.283 to 445A.285. Pursuant to NAC 445A.263, the permit may be modified to specify and limit any pollutants not previously limited.

- II.A.2. Facilities Operation-Proper Operation and Maintenance:** The Permittee shall, at all times, maintain in good working order and operate as efficiently as possible all treatment or control facilities, collection systems, or pump stations installed or used by the Permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance/quality control procedures.

- II.A.3. Adverse Impact-Duty to Mitigate:** The Permittee shall take all reasonable steps to minimize releases to the environment resulting from noncompliance with any effluent limitations specified in this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying

discharge. The Permittee shall carry out such measures, as reasonable, to prevent significant adverse impacts on human health or the environment.

**II.A.4. Noncompliance, Unauthorized Discharge, Bypassing, and Upset:**

- a. Any diversion, bypass, spill, overflow, or discharge of treated or untreated wastewater from wastewater treatment or conveyance facilities or process water from industrial or commercial operations under the control of the Permittee is prohibited except as authorized by this permit.
- b. In the event the Permittee has knowledge that a diversion, bypass, spill, overflow, or discharge not authorized by this permit is probable, the Permittee shall notify the Administrator immediately.
- c. In the event of any diversion, bypass, spill, upset, overflow, or release of treated or untreated discharge other than that which is authorized by the permit, resulting in:
  - i. Any unanticipated bypass which exceeds any effluent limitation in the permit;
  - ii. Any upset which exceeds any effluent limitation in the permit; and
  - iii. Any violation of a limitation for any toxic pollutant or any pollutant identified as the method to control a toxic pollutant.

The Permittee shall notify the Administrator within twenty-four (24) hours of the occurrence.

- d. A written report shall be submitted to the Administrator within five (5) days of diversion, bypass, spill, overflow, upset, or discharge detailing the entire incident including:
  - i. Time and date of discharge;
  - ii. The type of discharge (e.g. bypass, upset, or violation);
  - iii. The effluent limitation, condition, or standard violated;
  - iv. Exact location and estimated amount of discharge;
  - v. Flow path and any bodies of water which the discharge contacts;
  - vi. The specific cause of the discharge;
  - vii. The preventive and/or corrective actions taken; and
  - viii. A comprehensive list of all agencies, organizations, tribes, utilities, or local governments notified and when notification was issued.
- e. The Permittee shall report all instances of noncompliance not reported under Part II.A.4.c at the time DMRs are submitted. The reports shall contain the information listed in Part II.A.4.c.



- f. A "bypass" means the intentional diversion of waste streams from any portion of a treatment facility.
  - i. Bypass not exceeding limitations: The Permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded if the bypass is needed to allow essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts II.A.4.a and II.A.4.b.
  - ii. Anticipated bypass: If the Permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible, at least ten (10) days before the date of bypass.
- g. Bypass is prohibited, and the Administrator may take enforcement action against a Permittee for bypass, unless:
  - i. The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and
  - ii. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment down time. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance.
- h. The Administrator may approve an anticipated bypass, after considering its adverse effects, if the Administrator determines that it will meet the three conditions listed in Part II.A.4.g.
- i. An "upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- j. A Permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that:
  - i. An upset occurred and that the Permittee can identify the cause(s) of the upset;
  - ii. The permitted facility was at the time being properly operated;
  - iii. The Permittee submitted notice of the upset as required under Part II.A.4; and
  - iv. The Permittee complied with any remedial measures required under Part II.A.3.

- k. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Part II.A.4 are met.
  - l. In selecting the appropriate enforcement option, the Administrator shall consider whether or not the noncompliance was the result of an upset. The burden of proof is on the Permittee to establish that an upset occurred.
- II.A.5. **Removed Substances:** Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollution from such materials from entering any navigable waters.
- II.A.6. **Safeguards to Electric Power Failure:** In order to maintain compliance with the effluent limitations and prohibitions of this permit the Permittee shall either:
- a. Provide, at the time of discharge, an alternative power source sufficient to operate wastewater control facilities; or
  - b. Halt or reduce all discharges upon the reduction, loss, or failure of the primary source of power to wastewater control facilities.
- II.B. **RESPONSIBILITIES**
- II.B.1. **Right of Entry and Inspection:** The Permittee shall allow the Administrator and/or his authorized representatives, upon the presentation of credentials, to:
- a. Enter at reasonable times upon the Permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit;
  - b. Have access to and copy any records required to be kept under the terms and conditions of this permit;
  - c. Inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations required in this permit; and
  - d. Perform any necessary sampling or monitoring to determine compliance with this permit at any location for any parameter.
- II.B.2. **Transfer of Ownership or Control:** In the event of any change in control or ownership of facilities from which the authorized discharge emanates, the Permittee shall notify the succeeding owner or controller of the existence of this permit, by letter, a copy of which shall be forwarded to the Administrator. The Administrator may require modification or revocation and re-issuance of the permit to change the name of the Permittee and incorporate such other requirements as may be necessary. The Administrator shall approve all transfer of permits.
- II.B.3. **Availability of Reports:** Except for data determined to be confidential under NRS 445A.665, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the office of the Administrator. As required by the



Act, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in NRS 445A.710.

- II.B.4. Furnishing False Information and Tampering with Monitoring Devices:** Any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained by the provisions of NRS 445A.300 to 445A.730, inclusive, or by any permit, rule, regulation, or order issued pursuant thereto, or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under the provisions of NRS 445A.300 to 445A.730, inclusive, or by any permit, rule, regulation, or order issued pursuant thereto is guilty of a gross misdemeanor and shall be punished by a fine of not more than \$10,000 or by imprisonment. This penalty is in addition to any other penalties, civil or criminal, provided pursuant to NRS 445A.300 to 445A.730, inclusive.
- II.B.5. Penalty for Violation of Permit Conditions:** NRS 445A.675 provides that any person who violates a permit condition is subject to administrative and judicial sanctions as outlined in NRS 445A.690 through 445A.705.
- II.B.6. Permit Modification, Suspension, or Revocation:**
- a. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:
    - i. Violation of any terms or conditions of this permit;
    - ii. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;
    - iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge;
    - iv. A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination;
    - v. There are material and substantial alterations or additions to the permitted facility or activity;
    - vi. The Administrator has received new information;
    - vii. The standards or regulations have changed; or
    - viii. The Administrator has received notification that the permit will be transferred.
  - b. With the consent of the Permittee and without public notice, the Administrator may make minor modifications in a permit to:
    - i. Correct typographical errors;

- ii. Clarify permit language;
- iii. Require more frequent monitoring or reporting;
- iv. Change an interim compliance date in a schedule of compliance, provided the new date is not more than 120 days after the date specified in the permit and does not interfere with attainment of the final compliance date;
- v. Allow for change in ownership;
- vi. Change the construction schedule for a new discharger provided that all equipment is installed and operational prior to discharge;
- vii. Delete an outfall when the discharge from that outfall is terminated and does not result in discharge of pollutants from other outfalls except in accordance with permit limits; and
- viii. Reallocate the Waste Load Allocation as long as the total loading does not change.

**II.B.7. Toxic Pollutants:** Notwithstanding Part II.B.6., if a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Act for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit, this permit shall be revised or modified in accordance with the toxic effluent standard or prohibition and the Permittee so notified.

**II.B.8. Liability:** Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable Federal, State, or local laws, regulations, or ordinances.

**II.B.9. Property Rights:** The issuance of this permit does not convey any property rights, in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property, any invasion of personal rights, or any infringement of Federal, State, or local laws or regulations.

**II.B.10. Severability:** The provisions of this permit are severable and if any provision of this permit or the application of any provisions of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

**II.B.11. Duty to Comply:** The Permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for: enforcement action, permit termination, revocation and re-issuance, modification, or denial of a permit renewal application.

**II.B.12. Need to Halt or Reduce Activity Not a Defense:** In an enforcement action, the need to halt or reduce permitted activities in order to maintain compliance with the conditions of this permit shall not be a defense for a Permittee.



- II.B.13. **Duty to Provide Information:** The Permittee shall furnish to the Administrator, within a reasonable time, any relevant information which the Administrator may request to determine whether cause exists for modifying, revoking and re-issuing, or terminating this Permit, or to determine compliance with this permit. The Permittee shall also furnish to the Administrator, upon request, copies of records required to be kept by this Permit.

### PART III

#### III.A. OTHER REQUIREMENTS

- III.A.1. **Reapplication:** If the Permittee desires to continue to discharge, they shall reapply not later than 180 days before this permit expires on the application forms then in use. POTWs with permits issued under the National Pollutant Discharge Elimination System (NPDES) shall submit the sludge information listed at 40 CFR 501.15(a)(2) with the renewal application. The renewal application shall be accompanied by the fee required by NAC 445A.232.
- III.A.2. **Holding Pond Conditions:** If any wastewater from the Permittee's facility is placed in ponds, such ponds shall be located and constructed so as to:
- a. Contain, with no discharge, the once-in-25 year, 24-hour storm at said location;
  - b. Withstand, without structural damage, the once-in-100 year flood of said location; and
  - c. Prevent escape of wastewater by leakage other than as authorized by this permit.
- III.A.3. **Flow Rate Notification:** The Permittee shall notify the Administrator, by letter, not later than ninety (90) days after the 30-day average daily influent flow rate first equals or exceeds 85% of the design treatment capacity of the Permittee's facility designated in Part I.A. The notification letter shall include:
- a. The 30-day average daily influent flow rate;
  - b. The maximum 24-hour flow rate during the same 30-day period and the date the maximum flow occurred;
  - c. An estimate of when the 30-day average influent flow rate will equal or exceed the design treatment capacity of the facility;
  - d. A status report on the treatment works which will outline, but not be limited to:
    - i. Past performance;
    - ii. Remaining capacity of the limiting treatment and disposal units or sites;
    - iii. Past operational problems and improvements instituted; and
    - iv. Modifications to the treatment works, which are needed to attain the

permitted flow rate due to changing site specific conditions or design criteria; and

- e. A schedule of compliance to provide additional treatment capacity before the 30-day average daily influent flow rate equals the present design treatment capacity of the facility.

**III.A.4. Publicly Owned Treatment Works:** This section applies only to publicly owned treatment works as defined in 40 CFR 122.2.

- a. Per 40 CFR 122.42(b), all POTWs must provide adequate notice to the Administrator of:
  - i. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to Section 301 or 306 of the Act if it were directly discharging those pollutants; and
  - ii. Any substantial change in the volume or character of pollutants being introduced into the POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
- b. For the purposes of this paragraph, adequate notice shall include information on:
  - i. The quality and quantity of effluent introduced into the POTW; and
  - ii. Any anticipated impact resulting from a change of quantity or quality of effluent to be discharged from the POTW.



# Attachment A Priority Pollutants

BASE NEUTRAL EXTRACTABLES		VOLATILE ORGANICS		PESTICIDES		ACID EXTRACTABLES		METALS		DIOXINS		OTHER	
Storet Code	Name	Storet Code	Name	Storet Code	Name	Storet Code	Name	Storet Code	Name	Storet Code	Name	Storet Code	Name
34551	1,2,4-Trichlorobenzene	34506	1,1,1-Trichloroethane	39310	4,4-DDD	34621	2,4,6-Trichlorophenol	01268	Antimony	34675	2,3,7,8-TCDD	00948	Asbestos
34536	1,2-Dichlorobenzene	34516	1,1,2,2-Tetrachloroethane	39320	4,4-DDE	34601	2,4-Dichlorophenol	00978	Arsenic			00720	Cyanide, total
34346	1,2-Diphenylhydrazine	34511	1,1,2-Trichloroethane	39300	4,4-DDT	34606	2,4-Dimethylphenol	00998	Beryllium				
34566	1,3-Dichlorobenzene	34496	1,1-Dichloroethane	39330	Aldrin	34616	2,4-Dinitrophenol	01113	Cadmium				
34571	1,4-Dichlorobenzene	34501	1,1-Dichloroethylene	39336	Alpha-BHC	34586	2-Chlorophenol	01118	Chromium				
34611	2,4-Dinitrotoluene	32103	1,2-Dichloroethane	34361	Endosulfan I (alpha)	03615	2-Methyl-4,6-dinitrophenol	01119	Copper				
34626	2,6-Dinitrotoluene	34541	1,2-Dichloropropane	39338	Beta-BHC	34591	2-Nitrophenol	01114	Lead				
34581	2-Chloronaphthalene	34546	Trans-1,2-Dichloroethylene	34356	Endosulfan II (beta)	70012	4-Chloro-3-methylphenol	71901	Mercury				
34631	3,3-Dichlorobenzidine	77163	1,3-Dichloropropane (mixed)	39350	Chlordane (Technical)	34646	4-Nitrophenol	01074	Nickel				
34636	4-Bromophenyl phenyl ether	34576	2-Chloroethyl vinyl ether	34198	Delta-BHC	39032	Pentachlorophenol	00981	Selenium				
34641	4-Chlorophenyl phenyl ether	34210	Acrolein	39380	Dieldrin	34694	Phenol	01079	Silver				
34205	Acenaphthene	34215	Acrylonitrile	34351	Endosulfan sulfate			00982	Thallium				
34200	Acenaphthylene	34030	Benzene	39390	Endrin			01094	Zinc				
34220	Anthracene	32104	Bromoform	34366	Endrin aldehyde								
39120	Benzidine	32102	Carbon tetrachloride	39344	Gamma-BHC (Lindane)								
34526	Benzo(a)anthracene	34301	Chlorobenzene	39310	Heptachlor								
34247	Benzo(a)pyrene	85811	Chloroethane	39320	Heptachlor epoxide								
34230	Benzo(b)fluoranthene	32106	Chloroform	34671	Aroclor (PCB) 1016								
34521	Benzo(g,h,i)perylene	32105	Dibromochloromethane	39388	Aroclor (PCB) 1221								
34242	Benzo(k)fluoranthene	32101	Bromodichloromethane	89492	Aroclor (PCB) 1232								
34278	Bis(2-Chloroethoxy) methane	34371	Ethylbenzene	39496	Aroclor (PCB) 1242								
34273	Bis(2-chloroethyl) ether	34413	Bromomethane	39500	Aroclor (PCB) 1248								
34283	Bis(2-Chloroisopropyl) ether	34418	Chloromethane	39504	Aroclor (PCB) 1254								
39100	Bis(2-ethylhexyl) phthalate	34423	Dichloromethane	39508	Aroclor (PCB) 1260								
34292	Butyl benzyl phthalate	34475	Tetrachloroethylene	39400	Toxaphene								
34320	Chrysene	34010	Toluene										
34556	Dibenzo(a,h)anthracene	39180	Trichloroethylene										
34336	Diethyl phthalate	39175	Vinyl chloride										
34341	Dimethyl phthalate												
39110	Di-n-butyl phthalate												
34596	Di-n-octyl phthalate												
34376	Fluoranthene												
34381	Fluorene												
39700	Hexachlorobenzene												
34391	Hexachlorobutadiene												
34386	Hexachlorocyclopentadiene												
34396	Hexachloroethane												
34403	Indeno(1,2,3-cd)pyrene												
34408	Isophorone												
34696	Naphthalene												
34447	Nitrobenzene												
34438	N-Nitrosodimethylamine												
34428	N-Nitrosodi-n-propylamine												
34433	N-Nitrosodiphenylamine												
34461	Phenanthrene												
34469	Pyrene												

Note: Priority Pollutants shall be analyzed using approved Environmental Protection Agency (EPA) methods, and/or an appropriate combination of these methods to verify compliance with applicable water quality standards.

## Attachment B TMWRF Stream and River Monitoring Plan

TMWRF shall be responsible for coordinating the monitoring program, obtaining monitoring data, and reporting it to the Division per the following schedule:

- a. Bi-monthly monitoring at the stations and for the parameters listed below. Grab samples will be collected from the centroid of flow. A vertically integrating sampler will be used where possible.

Stations	Grab Sample Parameters	Parameter Units
1. East McCarran Bridge	Ortho-Phosphorus as P	mg/l
2. North Truckee Drain –Greg Street	Total Phosphorus as P	mg/l
3. Steamboat Creek –Clean Water Way	Nitrate as N	mg/l
4. Lockwood Bridge	Nitrite as N	mg/l
5. Clark Bridge –USA Parkway	Ammonia as N	mg/l
6. Derby Dam	Total Kjeldahl Nitrogen as N	mg/l
7. Painted Rock Bridge	Total Dissolved Solids	mg/l
	Total Alkalinity	mg/l

- b. Continuous monitoring between April 1 through November 30 at the stations and for the parameters listed below. Continuous is defined as a minimum of one analysis per hour obtained using continuous analyzers that are properly installed and maintained. The analyzers may be removed when river flow exceeds 500 cubic feet per second (cfs) at the Vista gage during extended periods of time.

Stations	Grab Sample Parameters	Parameter Units
1. Waltham Way Bridge –below the McCarran Ranch restoration site	Water Temperature	°C
	pH	SU
2. Painted Rock Bridge -midway between Derby and PLPT Boundary	Dissolved Oxygen	mg/l
	Specific Conductance	µS/cm

- c. Benthic macroinvertebrates monitoring will be conducted twice in representative river flow conditions, once during June-July, and once during September-October, at staff discretion. The benthic macroinvertebrates will be collected, enumerated, and identified to the taxonomic efforts and stations listed below.

Stations	Taxonomic Efforts –see Attachment C
1. East McCarran Bridge	
2. Lockwood Bridge	
3. Clark Bridge	



## Attachment C

### List of Truckee Meadows Water Reclamation Facility Taxonomic Effort

(This is a working list defining standard levels of taxonomic effort to be used for laboratory analysis pursuant to Part I.A.4.c.)

#### PHYLUM ARTHROPODA

##### Class Insecta

- Coleoptera -Identify to genus
- Diptera -Identify all to genus except in the following cases:
  - Canacidae -Identify to family
  - Chironomidae -Identify to subfamily or tribe
  - Dolichopodidae -Identify to family
  - Phoridae -Identify to family
  - Scathophagidae -Identify to family
  - Syrphidae -Identify to family
- Hemiptera -Identify to genus
- Megaloptera -Identify to genus
- Odonata -Identify to genus
- Lepidoptera -Identify to genus
- Ephemeroptera -Identify to genus
- Plecoptera -Identify to genus
- Trichoptera -Identify to genus

##### Subphylum Chelicerata

##### Class Arachnoidea

- Acari -Identify to family

##### Subphylum Crustacea

##### Class Brachiopoda

- Notostraca -Identify to genus
- Cladocera -Identify to family

##### Class Copepoda -Identify to subclass

##### Class Malacostraca

- Amphipoda -Identify to genus
- Decapoda -Identify to genus
- Isopoda -Identify to genus
- Mysidacea -Identify to genus

##### Class Ostracoda

- Ostracoda -Identify to family

#### PHYLUM COELENTERATA

- Class Hydrozoa -Identify to genus

#### PHYLUM MOLLUSCA

- Class Gastropoda -Identify all to genus except in the following cases:

- Hydrobiidae -Identify to family
- Physidae Identify to genus except for Physa/ Physella

- Class Bivalvia Identify to genus

#### PHYLUM NEMATODA -Identify to phylum

#### PHYLUM TARDIGRADA -Identify to phylum

#### PHYLUM PLATYHELMINTHES -Identify to family

#### PHYLUM ANNELIDA

- Class Hirudinea -Identify to genus
- Class Branchiobdellida -Identify to genus
- Class Oligochaeta -Identify to family
- Class Polychaeta -Identify to genus

#### PHYLUM NEMERTEA

- Class Enopla -Identify to genus